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ABSTRACT

Patterned after an initial study of Philippine education made in 1959-60, this paper reexamines the entire system of public education. A statistical review, general observations, and implementation of selected recommendations of the 1960 survey are presented relative to the elementary, secondary, and vocational school situations of 1958-59 and 1964-65. Sections on teacher education, organization and administration of the public schools, and financing the public schools for the same years are included. Criteria for effective vocational education are proposed. For the 1960 survey see FL 001 841. (RL)

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THE PUBLIC SCHOOLS OF THE PHILIPPINES

A REVIEW OF A SURVEY

J. CHESTER SWANSON
UNIVERSITY OF CALIFORNIA

-1967-

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FOREWORD

This Survey of the Public Schools in the Philippines was undertaken by USAID - NEC at the request of Secretary of Education Carlos P. Romulo. We quote two paragraphs of his request letter to Mr. W. C. Haraldson, Director of USAID, which state both the purpose of the survey and Dr. Swanson's qualifications.

> "The Department of Education is currently in the process of developing new policies and programs calculated to improve the educational system of the country. It is recalled that Dr. Chester Swanson was head of the ICA-NEC Survey Team which made a study of the public school system of the Philippines in 1960. He would, therefore, be of great assistance to the Department of Education in carrying out the aforementioned task.
>
> "Dr. Swanson's qualifications and background fit him peculiarly to this task of developing policies and programs for our school system. While he is originally a vocational and technical man, Dr. Swanson's experience includes the entire field of education."

Dr. Swanson's report is, in part, a re-survey of the 1960 report. Due to limitations of time, it is admittedly selective and partial. The author would be the first to insist that many of his recommendations are necessarily subjective in nature.

We extend our appreciation to officials of the Bureau of Public Schools and to the many educators whose helpful cooperation facilitated Dr. Swanson's study.

It is our hope that this brief report may prove thought-provoking and helpful.

William M. Westley
Chief, Education Division
USAID/Manila
January 22, 1968

A REVIEW OF
A SURVEY OF THE PUBLIC SCHOOLS OF THE PHILIPPINES--1960

J. Chester Swanson
University of California
December 1967

Introduction

The purpose of this study is to review the achievements of the public schools of the Philippines in terms of the observations and recommendations of "A Survey of the Public Schools of the Philippines--1960." 1/

The original study was made by a team of six American consultants and eleven Philippine counterparts assisted by the education staff of the United States International Cooperation Administration and a research staff from the Bureau of Public Schools of the Philippine Department of Education. This team consisted of specialists in various educational activities and its efforts extended over a period of one year. The present review was performed by one person during a period of three months. 2/ The relatively short period of time and the activities of a single person outline the basic limitations of the present review.

The author of this present review visited more than 50 schools in 10 different provinces. These visits included elementary schools, general high schools, barrio high schools, vocational schools, and normal colleges. Discussion and observations were made with teachers, supervisors and administrators. A study has also been made of annual reports, special studies, published speeches and writings of educational authorities. It must be clearly understood, however, that the conclusions and observations resulting from this study are the subjective opinions of the reviewer which are made from a relatively

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1/ Swanson, J. C., et al., A Survey of the Public Schools of the Philippines--1960. Published by United States Operations Mission to the Philippines. Printed by Carmelo & Bauermann, Inc., Manila, 1960.

2/ This review was made by J. Chester Swanson during the period September-December, 1967. Swanson was Staff Leader of the original survey of 1959-60. He was on leave from the School of Education, University of California, Berkeley for the period of the study.

small sampling of present practices and activities.

It should be recognized that the public schools of the Philippines is a vast diversified operation. It is the largest single activity in the nation. There are 178,702 teachers,[3] supervisors and administrators operating 33,849[4] different schools with 5,640,282 students. These activities require one-fourth of the total national budget. To obtain the total commitment to education of the people of the Philippines the activities of the private schools (1,492,506 students, 49,529 teachers in 2,476 schools)[5] must be added.

The report of this study will follow in general the plan of the report of the initial study of 1959-60. The time limit demanded some priorities. Conversations with persons in position of leadership and general observations caused the reviewer to give emphasis to vocational education and to teacher education. This arbitrary decision by the reviewer will be seen in the priorities given to observations and suggestions given in the body of the report.

THE ELEMENTARY SCHOOLS, 1958-59 AND 1964-65

Statistical Review

The growth of the public elementary schools is presented in Table 1. This table indicates some very good trends: (1) There has been an average growth of elementary school enrolment of more than six per cent per year since 1958-59; (2) the growth has been larger in the upper grades; (3) the growth in number of teachers has been greater than the enrolment increase, which reduces the pupil/teacher ratio.

Table 2 indicates that elementary school enrolment has increased at a greater rate than the elementary school age population has increased. Since this table includes private elementary school enrolments, Table 3 is given to show the relative growth factors between the private schools and the public schools. Both the private and the public elementary

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3/ Bureau of Public Schools, 1965 Statistical Bulletin, Research, Evaluation and Guidance Division, Bureau of Public Schools, Department of Education, Manila

4/ Ibid

5/ Bureau of Private Schools, "1964-65 Private Schools Statistical Bulletin." Division of Evaluation, Research and Statistics, Bureau of Private Schools, Department of Education, Manila.

Table 1. Elementary Education, Public Schools, 1958-59 and 1964-65

	1958-59	1964-65	Per cent Growth
Enrolment			
Grades 1-4	3,019,034	4,199,870	39%
Grades 5-6	782,106	1,127,834	44%
Total	3,801,140	5,327,704	40%
Number of Schools			
Grades 1-4	20,127	21,972	9%
Grades 5-6	8,404	11,573	38%
Total	28,531	33,545	18%
Number of Teachers			
Grades 1-4	70,503	109,847	56%
Grades 5-6	31,931	51,017	60%
Total	102,434	160,864	57%

Source: Annual reports, Bureau of Public Schools, for 1958-59 and 1964-65.

Table 2. Elementary Age Children and Elementary School Enrolment, 1958-59 and 1964-65

School Year	Estimated Population Age 7-12 years	Elementary School Enrolment*	Per cent in School
1958-59	3,925,400	3,446,395	88%
1964-65	5,181,000	4,974,121	96%
Per cent increase	+32%	+44%	+8%

*Includes private school enrolment, excludes enrolment of children under age 7 and over age 12.

Source: Annual reports of the Bureau of Public Schools and the Bureau of Private Schools and census reports.

Table 3. Elementary School Enrolment in Public and Private Schools, 1958-59 and 1964-65

School Year	Total Elem. Sch. Enrolment	Public Schools		Private Schools	
		Number	Per cent	Number	Per cent
1958-59	3,970,498	3,801,140	96%	169,358	4%
1964-65	5,575,280	5,327,704	95%	247,576	4%
Per cent increase	40%	40%	-1%	46%	0%

Source: Annual statistical reports.

schools have increased in enrolment with the private schools showing the largest percent increase. The public schools continue to have a very large percent of elementary school age children enrolled in these schools.

There continues to be a large number of children dropping out of school before the completion of the sixth grade. Table 4 shows the enrolment trends for a period of six years ending in 1958-59 and for another period ending in 1964-65. This indicates that the trend is toward a decrease in the dropout rate. Still, the dropout rate is much too high. More than 75,000 children completed the sixth grade who would not have completed these six grades under the dropout record of six years earlier period.

Table 4. The Enrolment Record of Groups of Children Entering the Public Schools, Grade One, in 1953 and in 1959

	1953-54 to 1958-59			1959-60 to 1964-65		
Grade	School Year	Enrolment		School Year	Enrolment	
		Number	Per cent		Number	Per cent
1	1953-54	835,694	100%	1959-60	974,216	100%
2	1954-55	672,950	81%	1960-61	804,945	83%
3	1955-56	614,737	74%	1961-62	765,165	79%
4	1956-57	552,641	66%	1962-63	672,933	69%
5	1957-58	419,781	50%	1963-64	579,315	59%
6	1958-59	345,584	41%	1964-65	509,968	52%
6th grade graduates	1959	310,428	37%	1965	452,988	46%

Source: Annual Statistical Reports, Bureau of Public Schools, 1953-54 to 1964-65.

The public schools of the Philippines provide no kindergarten or pre-school opportunities except in some of the laboratory schools of the teachers' colleges. There are also very few schools in which the seventh grade is offered. Table 5 gives the enrolments in the pre-school and seventh grades. This table would indicate that there is a demand for pre-school programs and some demand for the seventh grade which the public schools are not providing to any significant extent. There has been a large increase in pre-school age enrolment and seventh grade enrolment in the private schools but no significant enrolment change in the public schools in these grades.

Table 5. Enrolments in Kindergarten and Seventh Grade, 1958-59 and 1964-65

	1958-59		1964-65	
	Public Schools	Private Schools	Public Schools	Private Schools
Kindergarten	350	14,050	466	29,602
Seventh Grade	295	2,564	158	4,165

Source: Annual Statistical Reports, Bureau of Public Schools.
Annual Statistical Reports, Bureau of Private Schools.

There is evidence that the number of children per classroom has decreased during the six-year period under study. Table 6 gives the changes in pupil/teacher ratio. It can be seen that although the enrolments have increased by 39 and 44 per cent the number of teachers have increased by 56 and 59 per cent. This means that the average pupil/teacher ratio in the elementary schools have decreased by 11 per cent. There were, however, 6,620 classrooms with more than 50 pupils in the classroom in school year 1964-65 -- over 1,000 classrooms with more than 60 pupils. The trend, however, is a significant decrease in class size.

Table 7 indicates that the expenditures for elementary education has increased both in absolute amounts and relatively. The total amount expended for operation has increased by 139% while the enrolment has increased 40% and the per pupil expenditure, by 67%. The increased expenditures for operation has therefore provided for the increased number of pupils, a reduction in class size and some teachers salary increases but very little additional money for supplies and equipment.

Table 6. Elementary Education, the Number of Pupils per Classroom Teacher, 1958-59 and 1964-65

	1958-59	1964-65	Per cent Change
Enrolments			
Primary (Grades 1-4)	3,019,034	4,199,870	+39%
Intermediate (Grades 5-6)	782,106	1,127,834	+44%
Total (Grades 1-6)	3,801,140	5,327,704	+40%
Teachers			
Primary (Grades 1-4)	70,503	109,847	+56%
Intermediate (Grades 5-6)	31,931	51,017	+60%
Total (Grades 1-6)	102,434	160,864	+57%
Pupil/Teacher Ratio			
Primary (Grades 1-4)	43	38	- 11%
Intermediate (Grades 5-6)	25	22	- 12%
Total (Grades 1-6)	37	33	- 11%

Source: Annual Reports, Bureau of Public Schools.

Table 7. Financing Elementary Education, 1958-59 and 1964-65

	1958-59	1964-65	Per cent Increase
Expenditures for current operations	₱217,285,330	₱519,443,398	139%
Total elementary enrolment	3,801,140	5,327,704	40%
Expenditure per pupil	₱57.00	₱97.00	67%

Source: Annual reports, Bureau of Public Schools.

Tables 1 through 7 are given in order to show the changes which have taken place since the study of 1960 was published.6/ This information is largely quantitative; however, it has implication of or qualitative factors. More observations concerning quality factors will be made as selected recommendations of the 1960 study are reviewed.

6/ The data which were used in the 1960 Survey were for school year 1958-59. The data used in this review are for school year 1964-65 which are the most recent data available for all phases of this review.

General Observations

The general observations concerning elementary education might be summarized as follows:

1. There has been a very significant enrolment growth and distribution of elementary schools. (Table 1)

2. Financing by the national government has kept up with the growth in enrolment and the "cost of living" increase but has not overcome the deficiencies in equipment and materials of instruction.

3. The quality of instruction has improved. There is much less "rote memory" teaching. This has probably been due to a much better supply of textbooks and the effects of supervision and in-service education. This quality factor is, however, not uniform and much more needs to be done.

4. The Peace Corps Volunteers are performing in a most helpful manner in the schools to which they are assigned. Their major impact is in the subjects of English, Mathematics, and Science.

5. School buildings in general are unattractive, poorly lighted and in need of major repair. Teachers sometimes perform major feats in trying to make classrooms attractive. The new type of classrooms of the Marcos Administration are of great service in providing additional classrooms.

6. There is a need of more intensive supervision by principals and supervisors who are competent to give effective help to less able teachers.

Implementation of Selected Recommendations of the 1960 Survey --Elementary Education

Time does not permit an item-by-item analysis of the many suggestions and recommendations of the original study.[7] There are

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7/ An item-by-item analysis of the elementary education recommendations of the 1960 Survey was made by the Elementary Division of the Bureau of Public Schools and published in a mimeographed report--Summarized Data on the Extent of Implementation in the Field of Recommendations in the Swanson Report, 1967. Elementary Division, Bureau of Public Schools.

approximately 150 suggestions and recommendations in regard only to elementary education. Obviously, each one does not have the same degree of importance and many are closely related to others. The recommendations which have been selected for review are of significant importance and concern activities on which the reviewer has been able to make some observations from his visits, conversations or study.

1960 Recommendation: 8/ "That particular attention be given to the reduction of class size in the primary grades with strict adherence to the maximum of 40 set by the Board of National Education." (p. 29)

The pupil/teacher ratio has been reduced by 11% with the ratio now being 38. However, there remains over 45,000 classrooms of the 132,609 elementary classrooms with 40 or more students. Far too many teachers have more students than can be taught effectively.

1960 Recommendation: "That a more equitable distribution of teachers be made between primary and intermediate grades in proportion to the number of pupils enrolled." (p. 29)

There is evidence that in some cities and provinces significant improvement has been made in the equitable distribution of teachers to pupils. However, nationally, the pupil/teacher ratio is 22 for the intermediate grades and 38 for the primary grades. This is not a very equitable distribution of teachers. The small pupil/teacher ratio in the intermediate grades is the result of the 3 : 2 or 5 : 3 teacher/class ratio. This ratio results from an administrative policy to make subject matter specialists available for these grades. This policy will improve the quality of instruction in music, art, practical arts, home economics, and other subjects when the policy is effectively administered. It does, however, tend to unbalance the distribution of teachers between the primary and intermediate grades.

1960 Recommendations: "More in-service education activities be provided," (p. 30) "more adequate provisions be made for classroom visitation by supervisors in order that they can give more time to the instruction problems faced by teachers." (p. 30)

8/ These recommendations are taken from the 1960 Survey Report. The page number refers to the page on which the recommendation is given in the 1960 report.

There was evidence that where competent supervisors had the time and means for visiting classrooms that instruction was improved. There was also evidence that often supervisors made very few classroom visits. The need to help teachers with instructional problems was evident. In-service training of principals, supervisors and teachers is very important. The regional in-service training centers is an excellent move in this direction. These centers should be used more extensively. However, supervisors cannot be effective unless they visit classrooms regularly and extensively. This is achieved in some cities. It is most unusual to find evidence of extensive supervisory services to classroom teachers in the provinces. Travel funds and clerical assistance must be available if competent supervisors are to work effectively.

1960 Recommendation: "That compulsory enrolment and attendance... include Grade VII." (p. 41)

There were 295 pupils enrolled in grade 7 in 1958-59; there were 158 enrolled in 1964-65. These students are usually enrolled in a laboratory school of a normal college. The seventh grade was an integral part of the elementary schools before the war. Practically all schools would agree that another one or two years would be highly beneficial to the total school program. But it would be costly in terms of teachers, classrooms and equipment.

There is some thought being given to accomplish the addition of another grade by making the secondary school a five-year program. This can be done. In the United States the most common pattern is a kindergarten to six-grade elementary school and a secondary program of three years junior high school and a three-year senior high school, or a six-year secondary school. The consideration to place the additional grade in the secondary school is largely financial. The national government is committed to financing the elementary schools. If a grade is added to the elementary school, the financial burden becomes a national government responsibility. The secondary schools are financed by student fees and funds from the provinces and/or the cities.

1960 Recommendation: "That the NEC-ICA Textbook Printing Project be implemented as rapidly as possible.... That appropriations for textbooks be increased so that each child in the elementary school will be provided with essential textbooks." (p. 85)

The major improvement in the elementary schools results from the great increase of textbooks. Approximately twenty-four million

elementary textbooks have been printed under the textbook production project by November 30, 1967. 9/ The texts include Reading, Arithmetic, Language, Science, Social Studies, Music, Home Economics, and Civics. This is a major achievement and it has had a tremendous effect on improving instruction. However, it will require almost 50 per cent more textbooks to fully comply with this recommendation. These textbooks are wearing out (the normal life of a textbook is five years). The textbook printing program should continue at a high rate in order to completely meet the needs of replacement and the increasing enrolment. Other significant factors concerning the textbooks are:

1. Some of the content of these textbooks are relatively obsolete by the time they are published--particularly science and mathematics. This is unavoidable to a certain extent and may not be very harmful if the replacement books are changed in content and the newer books are distributed to the teachers who are prepared to use "new math" and the inductive reasoning methods of science.

2. Many of the newly printed textbooks have paper covers and a poor quality of paper which may result in a life of only one or two years. Studies in the United States and Japan have indicated that paperback textbooks are more expensive when there is use of the books by several classes over a period of several years.

1960 Recommendation: "That steps be taken to improve instruction in English." (p. 111)

The development of a series of workshops for the teaching of English as a second language and the extensive use of Peace Corps Volunteers has been the major efforts to improve the instruction of English. The major improvement in the teaching of languages in the United States is not in evidence in the Philippines; that is, the use of electronic equipment--tape recorders, etc. This is expensive but can be very effective. Radio programs have been used in some cities. The recent language experiments indicate that it is the use of a language that improves its effectiveness. Emphasis should be on the use of a language if the learner is to become proficient in its use.

1960 Recommendation: "That a vigorous research program be carried on in non-Tagalog and in Tagalog regions to determine the grade in

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9/ Report of the Educational Advisor for Textbook Printing, AID, dated December 12, 1967.

which it would be best to shift to English as the medium of instruction." (p. 111)

The Philippine Center for Language Study developed and operated an extensive research project in the use of English, Pilipino, and Hiligaynon. This project had a very sophisticated research design and was implemented by competent directors. The conclusions are also developed with due regard to the many complexities of such an experiment. Many human factors, emotional elements and environmental features may have exerted an effect which cannot be adequately realized or measured. The authors gave regard to such possibilities as they drew their conclusions.

The reviewer commends heartily such research and only hopes that any policies developed in regard to the language problem will be based on such extensive and sophisticated research.

The present research does not provide any strong support for changing the present policy. It is believed that the suggestions and recommendations given in the Survey Report of 1960 remain quite valid with the possible exception of the recommendation to change the introduction of Pilipino from Grade I to Grade III, in non-Tagalog regions.

Suggestions

The reviewer would make the following suggestions in regard to the elementary school program:

1. Continue to give number one priority to the elementary schools. They are the basic foundation for both leadership development and education of the total population for effective citizenship.

2. The textbook printing program should be continued by all means as a most important factor for quality instruction.

3. Expand the activities of the regional training centers to extend in-service education to more teachers and supervisors.

4. Provide more time and support for competent supervision. Particularly, allow more funds for travel and more relief from secretarial activities.

5. Continue evaluation activities of student academic achievement but give careful consideration to pupil aptitude and environmental factors.

6. Reduce the number of very large classes.

THE SECONDARY SCHOOLS, 1958-59 AND 1964-65

Statistical Review

The growth of the public secondary schools is difficult to reduce to statistical analysis because these schools are quite diversified in their classification. There are general or academic high schools; there are vocational schools (these may be industrial trade schools, agricultural schools or fishery schools, all of which may give post secondary work); and there are "colleges" which may have a large secondary level enrolment. The condition will be even more difficult to report in later years as the Barrio High Schools are reported statistically. There are no Barrio High School enrolments for the school years under study in this review. Table 8 gives the enrolments at the secondary level. The vocational school enrolments will be discussed more in detail in the section on vocational education.

Table 8. Public Secondary Schools, 1958-59 and 1964-65

Enrolments	1958-59	1964-65	Per cent Growth
Years I to IV			
General High Schools	186,052	303,567	+63%
Vocational Schools	46,195	77,407	+68%
Total	232,247	380,974	+64%
Number of Schools			
General High Schools	273	266	- 3%
Vocational Schools	103	199	+93%
Total	376	465	+24%

Source: Annual reports, Bureau of Public Schools and Bureau of Vocational Education.

Table 8 indicates that the growth in enrolment of the secondary schools have averaged an increase of almost 11 per cent per year

during the past six years. This increase is larger than the elementary school enrolment growth. The total number of schools providing secondary education has increased significantly even though the number of general high schools have decreased. This decrease in the number of schools was caused primarily by the change in classification of a number of general high schools to vocational schools by acts of the Congress.

While there were 465 public secondary schools with enrolments of 380,974 in 1964-65, there were 1,541 private schools with enrolments of 643,061. Thus the private schools serve almost twice as many secondary school children as are served by the public schools (general high schools and vocational schools). This is quite similar to the situation in 1959-60 (232,247 in public schools; 393,034 in private schools).

Table 9 indicates that a much smaller percentage of the high-school-age children are in school than elementary-school-age children. The public general high schools served only 10 per cent of the high-school-age youth in 1964-65. There are 12 provinces and 23 chartered cities with no public secondary school.

Table 9. Secondary-Age Youth and Secondary School Enrolment. 1958-59 and 1964-65

School Year	Estimated Population Age 13-16 yrs.	Secondary School Enrolment*	Per cent in School
1958-59	2,192,900	392,768	18%
1964-65	2,915,000	645,229	22%
Per cent increase	+33%	+64%	+4%

*Includes private school enrolment. All enrolments corrected to include only youth ages 13-16.

Source: Annual reports, Bureau of Public Schools and Bureau of Private Schools.

General Observations

Some general observations of the reviewer in regard to secondary schools (excepting vocational schools) might be summarized as follows:

1. The public secondary schools continue to be the "weakest link in the Philippine educational system." 10/ This observation is based upon crowded classrooms, few textbooks, poor libraries, laboratories, shops, and very poor buildings. The basic cause is poor financing.

2. There are far too few secondary schools. A very large number of children in the Philippines do not live where a public high school is available. There were no public high schools in 11 provinces and 24 chartered cities in 1964-65.

3. The Barrio High School 11/ is too recent to adequately evaluate. There are no valid statistics available from the Bureau of Public Schools. What reports are available would indicate a very rapid growth since 1964-65.

Conversations with provincial superintendents, principals, and supervisors and visitations are bases for making the following comments:

a. The inspiration of the founder of the Barrio High School movement has achieved almost a miracle in achieving the very rapid growth and expansion of these schools. This growth is a monument to his tremendous energy as well as his inspiration.

b. This rapid growth provides an index to the extensive desire for secondary school privileges for barrio youth.

c. The Barrio High School provides for barrio community involvement in planning and operation. This is desirable and can have many good overtones for general barrio development.

d. It does not appear practical to expect the barrio high school

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10/ 1960 Survey Report, page 119.

11/ For a description of the Barrio High Schools see:
(a) Pedro T. Orata, "Barrio High Schools in the Philippines." The Asia Foundation Program Quarterly, No. 44, June 1967, pages 4-7.
(b) Bureau of Public Schools, Memorandum No. 86, s. 1966, "Guidelines in opening and closing experimental barrio high schools."
(c) Barrio High Schools Bulletin. Edited and published by Pedro T. Orata, Urdaneta, Pangasinan. Issued once a month.

program to expand to the extent that it can adequately serve the more than two and one-half million students who are now in public elementary schools (grades 3 to 6) and who will be of high-school age in four years.

e. Very careful planning must be done in order to maintain even a minimal satisfactory program in these schools.

4. The science program of instruction is sadly lacking in adequate demonstration experiment equipment and almost devoid of any equipment for individual student experimentation. The plan of science fairs and the development of "Fundamentals of Physics and Chemistry for Philippine Schools" by the Science Teaching Center of the University of the Philippines are significant steps toward improvement.

The Implementation of Selected Recommendations of the 1960 Survey --Secondary Education

Certain recommendations of the 1960 Survey are stated in the following pages and comments made as to the extent of implementation of these selected recommendations:

1960 Recommendation: "Science deserves more than passing attention in this age of greater scientific developments... There is a need for updating the content of science curriculum, providing more equipment and relating the instruction to meaningful experiences of Philippine youth." (pp. 129 and 131)

There is very little evidence of improved science instruction. No secondary school which was visited had even minimal equipment. In some instances, Peace Corps Volunteers were effectively assisting the science instruction but were severely limited by lack of textbooks, library references and laboratory equipment. The text materials being produced by the University of the Philippines Science Teaching Center will prove quite helpful if they become available to high school students and teachers.

1960 Recommendation: "The agricultural and industrial arts programs should be recognized as pre-vocational with... standards maintained for teachers, equipment, supplies and projects." (p. 137)

The high school program in agriculture and industrial arts is sometimes called practical arts, sometimes vocational. The high school with a shop may be called a comprehensive high school. These programs have not been standardized in content, teacher competencies or facilities.

1960 Recommendation: "In cases in which a trade school is easily accessible to a general high school coordination between the two schools should be effected." (p. 137)

There is no evidence that there is cooperative use of buildings, shops, teachers or program offerings. This is much more difficult now than in 1960 because the vocational schools are in a separate bureau and not now a part of the Bureau of Public Schools.

1960 Recommendation: "The Survey Team found the (high school) curriculum to be operating under many handicaps. Most of these are related...to the critical financial plight which besets the general high school." (p. 140)

Thirty-seven school divisions and eleven chartered cities list expenditures for general secondary schools. 12/ The City of Manila has the highest expenditure of more than 13 million pesos with a per pupil expenditure of 191 pesos per pupil per year. The lowest expenditure was the division of Surigao del Sur with expenditures of almost 35,000 pesos and a per pupil expenditure of 25 pesos per pupil per year. Even Manila does not have the facilities it should have. It does supply most of the needed textbooks above grade IV. It is difficult to conceive what kind of a high school which could be operated on 25 pesos per pupil per year. Of 48 school divisions and cities reporting, 26 expend more than 100 pesos per pupil per year. The curriculum continues to be severely handicapped by lack of sufficient funds.

1960 Recommendation: "Develop vocational curricula for the third and fourth years of the 2-2 Plan high school which will provide employable vocational skills in graduates of these high schools." (p. 220)

The Board of National Education in 1957 adopted a unique curriculum for the high school called the 2-2 Plan. This high school would provide a general program of studies for all students in the first two years. In the last two years the students would choose between a two-year academic program or a two-year vocational program. This program was accepted and recommended by the Survey Team of 1960 on the following conditions:

12/ Table 57, 1965 Statistical Bulletin, Bureau of Public Schools.

1. That the program be standardized so that adequate minimum standards for teachers, equipment and course content would be maintained wherever the program was established.

2. That supervision by competent vocational teachers be provided.

3. That the program be considered phase 1 of a vocational curriculum which could continue into the vocational school for an additional two or more years.

No evidence has been observed where the 2-2 Plan high school is now effectively in operation. Standards, supervision and cooperation with the vocational schools do not exist to any effective extent.

Suggestions

The Philippines maintains as a national objective, universal education for all youth through the sixth grade. The educational leaders of the countries of Southeast Asia have accepted as an objective, education for all their citizens through the eighth grade. At the present time (1964-65 statistics) about 10 per cent of the youth ages 13-16 are in the public high schools with an additional 21 per cent in private high schools. This means that approximately 70 per cent of the nation's youth (ages 13-16) are not in school. These more than 2,000,000 youth are not being educated for leadership or as effective producers. Their time and energies may be diverted to acts of violence or delinquency in general. It will be quite difficult for the Philippines to take its rightful place among the nations unless it has not only trained leaders but also a citizenry for effective participation in the social, political and economic activities of the nation.

The question must be asked by the responsible leadership of the nation: Can the Republic of the Philippines finance an adequate program of education for all its youth through the secondary school? It is easy to answer "no" to this question. Some economists have accepted the answer as "no". This reviewer is not competent to give an answer to this question. The statements which should be emphasized here are:

1. A very large per cent of the youth of the Philippines are not now receiving any education at the secondary level.

2. Much of the secondary level education which is provided is not of a satisfactory quality.

3. The compromises which are made in regard to the quality factors or the quantity factors should be realistically recognized and clearly stated and understood. These compromises might be:

a. A system of provincial and city high schools of certain minimum standards which would detect leadership potential and make it possible for such potential leaders to go on to college. Such standards should include more extensive and more effective supervision, evaluation and guidance. The minimum standards would require more equipment and materials for science, practical arts and mathematics.

b. A system of barrio high schools which would not normally have the class size, the equipment, the instruction, the supervision, the guidance or facilities of the provincial or city high schools but which would work toward such standards to the extent made possible by the financing provided. It should be honestly and clearly understood that within the present or foreseeable future the financing will not permit the quality of instruction which would be desirable.

c. An extensive compromise in the national budget whereby two to four times as much financing is provided for education whereby education of high quality is provided for all. This compromise would be very severe in terms of all other government services and/or the tax burden.

4. If the secondary schools of the Philippines do not or cannot provide an adequate minimum standard program for all youth, then a search should be made for unique creative methods to provide educational services for the masses of the people who have not had the opportunity of a secondary school education. This might be a massive nationwide radio program; it might use television, newspapers and other mass communication media; it might be a large expansion of the PACD. The adult education division of the Bureau of Public Schools should perform a major role. Probably a combination of all such agencies and activities would be involved.

What is being considered here is not a program which is in operation in any nation at the present time. It would be a program to educate the total population of a nation without using exclusively the formal, traditional pattern of schools. Certainly, there now exists the technical apparatus to extend educational services to people other than by means of a teacher standing before a blackboard in a classroom situation. This is not suggesting eliminating teacher-pupil-

classroom situations. 13/ This is suggesting that supplementary educational services at realistic expenditures might reach youth and adults with a program to improve their economic, social, political and academic skills.

If one would accept as a fact that the secondary schools will continue in the same general pattern--poorly financed but with a leadership dedicated to make improvements to the extent that are possible --the reviewer would make the following specific suggestions:

1. Expand the number of public high schools so that there is at least one public high school in each province and chartered city with quality standards which are clearly stated, understood and which are evaluated annually by the Bureau of Public Schools. These standards should include teacher qualification and performance, class size, library facilities and their use, laboratory equipment and supplies, practical arts equipment and supplies, and buildings and grounds.

2. That an evaluation be made each year by the Bureau of Public Schools of pupil achievement in certain selected subject matter.

3. That competent supervisors be provided clerical services and transportation which would permit them to assist principals and teachers achieve the minimum quality standards.

4. That the Barrio High School be encouraged and that standards be maintained for such schools through the "Mother School" and/or the Superintendent's supervisory staff. It should be clearly stated and understood that normally the Barrio High School cannot achieve the same standards of equipment, supplies, and specialized teachers of the province or city high school. In general the barrio high school should be limited to two years.

13/ Thought should be given to the questions: What kind of educational program should be provided to develop political, economic, social and academic skills to a total population, considering today's technical facilities? Would it be an evaluationary development from present school program? Would it be a revolutionary break away from present school programs to unique educational activities? Would thinking about such possibilities provide effective educational activities which could supplement the present secondary level educational program to reach those who are not and have not benefited from high school experience?

5. That no vocational education be provided in the provincial, city or barrio high schools. That practical arts be provided with equipment, materials, teacher competency and activities which would be pre-vocational. (This is the present situation where equipment and materials are available. The classes are however often called vocational even though there is very little relationship between the skills taught and the skills required on a job.)

The proposal for new legislation creating a 3-2 general high school appears to be a move toward an increase in quality education. Under such a secondary school program, the first 3 years would be general education with some practical arts in the curriculum. The last 2 years would be similar in organization to the last 2 years of the 2-2 Plan high school, providing a choice of a vocational curriculum or an academic curriculum. If this is done, the vocational phase should be under the supervision of competent vocational supervision with adequate standards.

THE VOCATIONAL SCHOOLS, 1958-59 AND 1964-65

Statistical Review

The growth of the vocational schools is presented in Table 10. There has been an average growth of more than seven per cent per year during the six-year period under consideration. It is always difficult to present statistics for vocational education because vocational education is not a single program of instruction but is a multiplicity of curricula quite different in content. Vocational education in the Philippines is classified in its administrative organization into Trade and Industrial education, Agricultural education, and Fishery education. Each of these administrative divisions has a multiplicity of curricula. Trade and Industrial education, for instance, reports curricula for 25 different occupations for 1964-65 and these vary from auto mechanics to cosmetology to men's tailoring. This might be considered the horizontal spectrum. The vertical spectrum is also diversified--from a four-year secondary school program (the seventh to tenth year in school) to two-year or four-year curricula beyond the high school years. Thus, vocational education is a very diversified program just as the world of work it attempts to serve is quite diversified in the skills and knowledge it demands of its workers.

The total enrolment has increased 56 per cent between 1958-59 and 1964-65, while the number of teachers and number of schools have increased 42 per cent and 83 per cent, respectively.

Table 10. Vocational Education, 1958-59 and 1964-65

Enrolment	1958-59	1964-65	Per cent Growth
Trade & Industrial Schools			
Secondary, Years I to IV	36,148	47,876	32%
Post-secondary	3,007	7,355	145%
Sub-total	39,155	55,231	41%
Agricultural Schools			
Secondary, Years I to IV	16,866	28,104	67%
Post-secondary	548	1,990	263%
Sub-total	17,414	30,094	73%
Fishery Schools			
Secondary, Years I to IV	1,936	5,974	208%
Post-secondary	0	30	--
Sub-total	1,936	6,004	210%
Total SECONDARY	54,950	81,954	49%
Total POST-SECONDARY	3,555	9,375	164%
GRAND TOTAL	58,505	91,329	56%
Number of Schools			
Trade and Industrial	48	86	79%
Agricultural	51	81	58%
Fishery	11	34	209%
Total	110	201	83%
Number of Teachers			
Trade and Industrial	1,600*	2,318	44%
Agricultural	1,042	1,359	30%
Fishery	165**	318	93%
Total	2,807	3,995	42%

*Data not available; estimate.
**For school year 1959-60.

Source: Annual reports of the Bureau of Public Schools for 1958-59 and of the Divisions within the Bureau of Vocational Education for 1964-65.

The change in the organization for the administration of vocational education within the Department of Education is a major feature of vocational education now compared to six years ago. Charts 1 and 2 show the organizational changes. It can be seen that the Vocational Division is now a separate Bureau and is not a part of the Bureau of Public Schools. This change gives vocational education greater status and independence than was true in 1958-59. It makes it more difficult, however, to have the type of interrelationship with the general high school that is often desirable and which was suggested in 1960. This change in organization was made by an act of the Congress in 1963.

CHART 1. Organization for Administration of Vocational Education. 1958-59

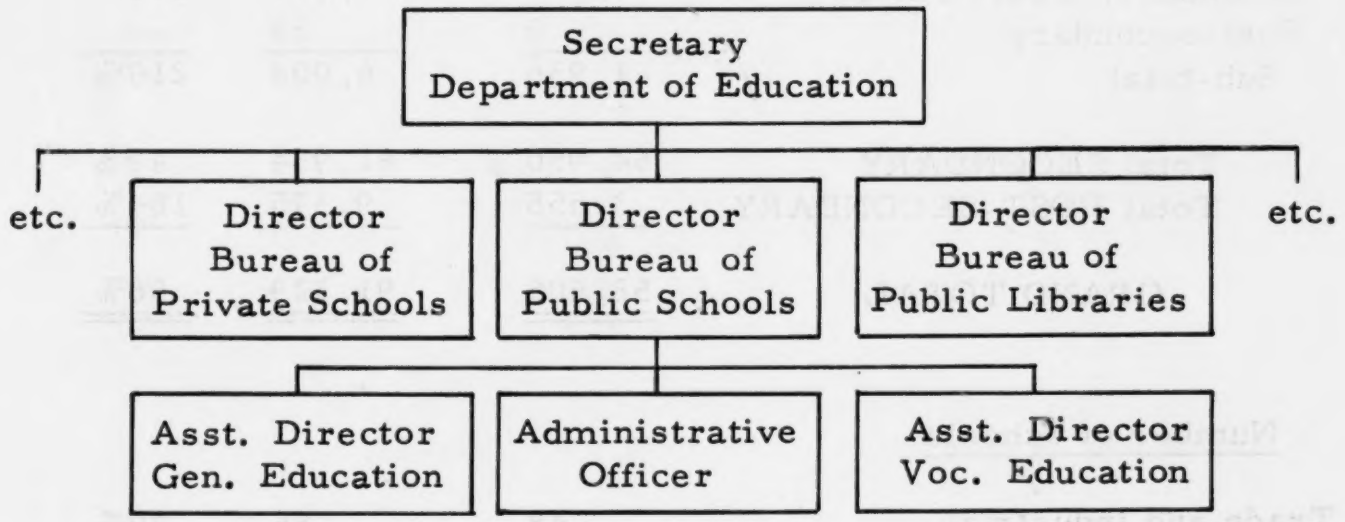
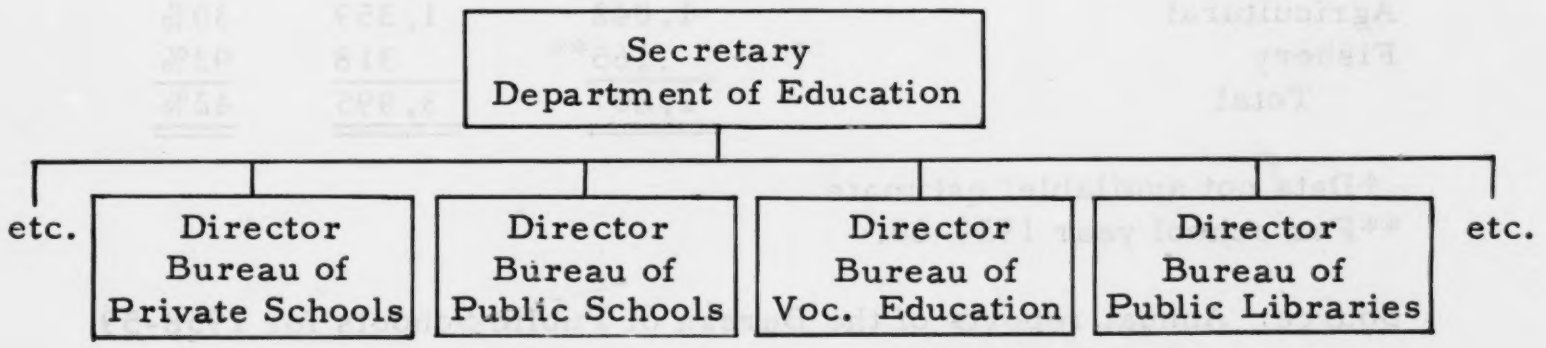


CHART 2. Organization for Administration of Vocational Education. 1964-65



Another major change of an organizational nature is changing the status of a general high school to a vocational school and a vocational school to a college. Changes such as these are made by legislative action. There are 93 new vocational schools since 1958-59. Many of these were created by legislative action changing the status of a general high school to that of a vocational school. This action is taken often because of the difficulty of financing a general high school (a financial responsibility of the province or city). When an act of the legislature creates a vocational school, it becomes the responsibility of the national government to finance the school. There is therefore considerable motivation on the part of parents, school personnel, provincial officers and congressmen of the area of a general high school to have it become a national school, which makes it a vocational school (in name).

A somewhat similar condition exists when vocational schools are converted into independent colleges by legislative action. Neither a vocational school can be made into a college nor a general high school made into a vocational school solely by a legislative act. There are now vocational schools with no vocational quality equipment, materials or instructors. Similarly, there are schools named colleges with no appropriate college quality equipment, materials or teachers. These kinds of condition make it impossible for vocational education to perform effectively.

Table 11 indicates that the pupil/teacher ratio has remained about the same during this period. However, when the average pupil/teacher ratio is as low as 17 (this is the situation for fishery schools), it means that a number of schools have very low pupil/teacher ratios. In the case of the fishery schools, 50 per cent have a pupil/teacher ratio of less than 15 and two schools with less than 10. This ratio is even smaller when other professional persons in the school are included. Such very low pupil/teacher ratio can increase the effectiveness of an instruction program but this might result in such a high cost that it would be very difficult to justify.

Table 11. Pupil/Teacher Ratio--1958-59 and 1964-65

	Type of School			
School Year	Trade and Industrial	Agricultural	Fishery	All Vocational
1958-59	35	17	16	25
1964-65	24	22	17	22

Source: Annual reports, Bureau of Public Schools and Bureau of Vocational Education.

The vocational schools continue to be the best financed of all the public schools. Table 12 indicates the relative financial position of the public schools during the years under consideration.

Table 12. *Per Pupil Expenditures for Public Schools 1958-59 and 1964-65

Type of School	1958-59	1964-65	Per cent Increase
Elementary	₱ 58/pupil	₱ 97/pupil	+67%
General Secondary	₱103/pupil	₱126/pupil*	+22%
Vocational Schools	₱290/pupil	₱430/pupil	+48%
Teachers Colleges	₱348/pupil	₱296/pupil	−15%

*This is the per pupil expenditures for the 36 provinces and 11 cities which reported expenditures for operations.

Source: Annual statistical reports, Bureau of Public Schools and Vocational Education Divisions.

There are reasons why vocational schools usually require a larger per pupil expenditure. However, the increased financing in this six-year period has provided for a 56 per cent increase in enrolment and in addition a 48 per cent increase in per pupil expenditure. The source of funds and operating expenditures are shown in Table 13.

Table 13. Expenditures for Operation, Vocational Schools, 1958-59 and 1964-65.

School Year and Source of Fund	TYPE OF SCHOOL: Trade and Industrial	Agricultural	Fishery	All Vocational Schools
1958-59				
Province Funds	₱ 115,750	None	None	₱ 115,740
National Funds	7,183,552	₱ 6,038,286	₱1,077,321	14,299,159
Tuition and other Funds	1,735,914	583,787	107,813	2,427,514
Total	9,035,206	6,622,073	1,185,134	16,842,413
1964-65				
Province Funds	₱ 6,000	None	None	₱ 6,000
National Funds	12,778,928	₱10,984,416	₱3,514,022	27,277,366
Tuition and other Funds	2,632,560	2,829,597	1,110,288	6,572,445
Total	15,417,488	13,814,013	4,624,310	33,855,811
Per Cent Increase				
National Funds	↑ 78%	↑ 82%	↑ 226%	↑ 90%
Tuition, etc. Funds	↑ 52%	↑ 384%	↑ 930%	↑ 171%
Total	↑ 71%	↑ 109%	↑ 290%	↑ 101%

General Observations

When the reviewer was here during the period of the 1960 Survey, he was optimistic concerning the vocational schools. New equipment had been placed into approximately twelve industrial schools and a similar number of agricultural schools. A considerable number of vocational teachers and administrators had recently had one to two years advanced training in the United States or Europe. There was a vigor and determination among the staff that developed a confidence in the observer that vocational education in the Philippines was about to "get into high gear" and serve its students and the nation in an effective manner. But vocational education nationwide is not serving the Philippines as it should.

The buildings of the schools visited have in general improved. Vocational school buildings must provide for adequate housing of valuable equipment as well as an environment for learning. Some of the equipment is often not in operating condition. And quite often the equipment is not in operating condition because the vocational teachers and administrators do not have the skills and knowledge, which should be available in a vocational school, to make the needed repairs or improvise a substitute for the normal repair procedure. One of the justifications for making this observation is the fact that in some schools and some shops this is being done and equipment is kept in operating condition.

As the reviewer talks to persons in business, industry and government, he is often asked the question: Why is vocational education not doing a better job? This is the question for which the reviewer has been trying to find an answer. There is no one simple answer to this question. The reviewer would like to answer this question by first listing some major contributing factors which make it difficult for vocational education to perform in an effective manner, and second to give some suggestions which it is believed are essential in order to improve the situation.

The following are believed to be major contributing factors which are hindering the development of a more effective vocational education program:

1. The students are too young and immature physically, mentally and socially. The student usually enters the vocational school at age 13 or 14 and after completing the sixth grade--some may even enter at age 12. It is not at all uncommon to see children in shops attempting to handle tools and equipment which is obviously beyond their

physical ability. Mental, motivational and social limitations may not be so apparent but may be even more of a handicap to the teaching-learning process.

2. The vocational school is in reality requiring the curriculum of the general high school plus a vocational curriculum. The general high school requires from five hours and twenty minutes to six hours per day of instruction. The vocational school requires from seven to eight hours per day. The seven to nine subjects of the vocational curriculum plus the physical exertion required make it very difficult for the vocational student to make the necessary progress in the learning process. A new curriculum has been developed with the assistance of industrial and agricultural practitioners which would remedy the present difficulty. It should be implemented as quickly as instructional materials and teacher knowledge permit.

3. The vocational teacher is often a "book scholar" and does not have the necessary occupational skills. No vocational teacher in the United States is employed until he has had from four to six years' employment in the occupation he proposes to teach. It is unusual to find a vocational teacher who has had any appreciable occupational experience. A plan should be developed for regularly sending vocational teachers to industry, business and agriculture for practical experience.

4. The vocational curriculum is generally not vitally related to specific employment opportunities either in the skills and knowledge demanded by the labor market or the number which might be employed. This can only be overcome by the use of practitioners in the various occupations to help develop the curriculum.

5. There is not the kind or amount of supervision from the Bureau of Vocational Education which could evaluate the teaching process and make the necessary changes to produce effective vocational instruction. The number of vocational schools which now exist and the manner by which they are created make it impossible with any reasonable size supervisory and administrative staff in the Bureau to bring instruction up to a satisfactory standard or maintain effective supervision. Travel funds must be made available.

The educational process is a process that by its very nature must follow certain basic criteria. A baby would never learn to walk unless it went through certain muscular and coordinating activities. No medicine a doctor might give, no directive by a parent, no act of the legislature can cause a baby to walk. The baby must go through a certain process--regardless of whether he is pauper, prince, oriental, occidental, etc. Similarly, a school cannot teach vocational skills

without certain standards of teaching, equipment, instructional materials, curriculum organization, etc. Placing the name vocational above a building or in a legislative act does not of itself make a school an occupational training center. Appendix "A" is attached to this review to provide a list of basic criteria which must be followed if an institution is to become an effective occupational training center. These criteria are given because the suggestions which follow are methods which could be used to make the present vocational education schools in the Philippines serve the nation in an effective manner. Compromises and alternatives could be made in the suggestions given. Very few, if any, compromises can be made in the criteria listed if vocational education is to effectively serve the student or the nation.

Suggestions

The following suggestions or recommendations are a radical change from the recommendations of the 1960 Survey, therefore no review of the recommendations of the 1960 Survey is presented.

The observations of the previous section appear to be very severe. They are severe in terms of the vocational schools producing highly skilled persons for the Philippines. These schools do serve almost 100,000 boys and girls in approximately 200 schools in 57 provinces and cities. They are better equipped and better housed than many of the general high schools. The teaching, instruction materials and textbooks are usually in better supply than the high schools. The tuition is usually less than that of the high schools and usually a system of selection of students provides the vocational schools with students of above average ability. These factors are all significant in the instruction process and must not be overlooked in the criticism made of these schools as vocational schools. If these schools were examined as general high schools they might have some severe limitations in relation to the most desirable secondary schools but many of them would rank among the best secondary schools in the nation.

These schools are vocational schools with an objective of developing a reservoir of skilled manpower to improve the economic status of the nation. As vocational schools the reviewer does not consider that they are serving the critical manpower needs of the nation. They have been considered in terms of the criteria outlined in Appendix "A". These suggestions are made in relation to such criteria.

1. *Vocational education should not begin until a student has completed the four years of high school or has worked for several years and is more than 16 years of age.*

This policy would provide vocational schools with students more mature physically, mentally and socially. If a vocational school continues to have a high school level program, it should be a general secondary school curriculum with an emphasis on pre-vocational practical arts instruction but definitely not the vocational instruction here described. Such an institution should not be called a college unless it provides a curriculum which leads to a baccalaureate degree. If a school is to be a comprehensive institution with a secondary curriculum, a vocational curriculum, and an academic degree curriculum, then the school should be organized with a secondary school division, a vocational school division, and a college division. Specific standards should be maintained for each division. A separate vocational institution would be preferable.

2. ***The number of vocational schools should be reduced to not more than 25 and preferably not more than 15 until adequate standards have been established and such schools have been brought to such standards.***

As it becomes possible in manpower, facilities, and equipment to meet such standards, additional schools should be added but only after the need has been established and the standards have been achieved in manpower, equipment and facilities. If the vocational schools cannot achieve a recognized and accepted standard of excellence, the vocational will cease to exist except as a custodial institution for social and academic inferior students. This has happened in many nations.

3. ***An entirely new curriculum should be developed for vocational schools.***

The general academic curriculum should be discontinued as a requirement. Academic courses should be available for students who need them in relation to the specific occupational curriculum they are following or as electives of their choice.

A large part of the student body would probably be spending full-time in shops, laboratories or theoretical courses related to their occupational choice.

A student should be permitted to progress at his own rate and be presented a certificate of proficiency upon achieving the skills and knowledge required for employment. Many students should be able to complete vocational courses in three months, six months or nine months, depending upon the nature of the occupation, the ability of the student and the intensity of the effort of the student.

4. ***The student should be examined as to his aptitude, ability and motivation for the occupation he wishes to learn.***

Such student examination should never be solely general academic achievement written examinations. They should often be performance or aptitude examinations, sometimes only interviews and a trial period of instruction. The basic objective of such an examination is to determine if the student applicant has the ability to learn the occupation being considered.

5. ***Perfomance examinations should be given to determine the skill achievement of the student.***

These examinations should in general be given by a person other than the teacher and evaluated by a person proficient in the occupation for which the student has been trained.

6. ***The vocational industrial schools should be operated in metropolitan centers where there are demands for skilled workers.***

7. ***The occupations for which training is given should be determined from a study of the labor market in the metropolitan area of the school***

New courses should be added and present courses discontinued as the labor market demands change. A course should never be offered until a qualified teacher is available and equipment, instructional materials and facilities have been procured. Obsolescence should be recognized and when the labor market no longer needs the skills being taught the curriculum should be discontinued or changed to meet new conditions.

8. ***Teachers should be employed who have had extensive experience in the occupation to be taught or has satisfactorily passed a perfomance and knowledge test proving his competency to perfom such instruction.***

In-service education should be given to teachers to keep them abreast of changing skill requirements in the various occupations being taught.

9. ***Agricultural and fishery schools should be operated where there is a demand for the skills which are to be taught.***

The carabao, the bolo knife, and the banca have served the Philippines well during the past centuries. They will not however develop agricultural or fishery industries which will improve the economy of the Philippines. These schools should be operated

where modern agricultural and fishery methods can be used. Such equipment should be available before instruction is begun. Such schools should be operating profit-making activities in all the programs of instruction.

10. ***All vocational programs should be evaluated continuously by central office personnel.***

The major aspect of a program of evaluation should be the ability of the graduates to get and hold jobs for which they have been trained.

11. ***National advisory committees and local school advisory committees should be extensively used in evaluation, curriculum development, and student selection and placement.***

There is an active advisory committee for the new Marikina vocational school. This should be the practice for all vocational schools and their curricula.

12. ***The supervisory staff should include persons who are labor market analysts and specialists in vocational curriculum development.***

Vocational educational leadership will need persons who will keep abreast of the labor market demands and can convert such information into practical operations as to what is to be taught, to whom it should be taught, where it should be taught and to how many it should be taught. These skills are not normally available in an educational supervisory staff. They are however essential for effective vocational education.

It will not be easy to convert the present widely dispersed vocational program of the Philippines into the organization and activities described above. Such a program could be a vital value to this developing country. No thinking person could conceive of such a change being done in other than an orderly evolutionary manner.

The reviewer would suggest that a Bureau of Vocational Education staff committee with the aid of a national advisory committee establish a three-year (short term) and a ten-year (long term) plan to implement these suggested changes. If the proper persons on the staff were chosen, it would be a means of a very effective in-service staff training process. If the proper advisory committee was chosen, it could gain prestige and confidence in the national vocational education leadership.

TEACHER EDUCATION--1958-59 AND 1964-65

Statistical Review

The Bureau of Public Schools in the 1918 to 1929 period organized seven normal schools which grew in number to eight in 1938. These were two-year teacher education institutions to train elementary school teachers. In 1952 and 1955 they all became four-year colleges but remained solely teacher training institutions for elementary school teachers. These normal schools and teachers colleges supplemented the teacher training activities of an earlier normal school (Philippine Normal College) and the College of Education of the University of the Philippines. Table 14 indicates the enrolment and growth of these colleges.

Table 14. Teachers Colleges of the Bureau of Public Schools 1958-59 and 1964-65

	1958-59	1964-65	Per cent Increase
Number of Schools	8	7 (8)*	- 13% (0)*
Enrolment	3,410	9,746*	+186%*
Number of Teachers	284	855**	+201%

*Includes Zamboanga Teachers College. It has recently been made an independent national college.

**This is an inflated figure because it includes a large field and laboratory schools staff at the Normal College at Bayambang in Pangasinan.

In addition to the present seven teachers colleges in the Bureau of Public Schools, there are sixteen public colleges and universities with teacher education programs. Only one, the University of the Philippines, offers graduate work. Many of them are vocational schools which offer only vocational and practical arts teacher education.

All of the public teacher education institutions had enrolment of 37,522 students and 3,685 graduates in 1964-65. The Philippines needs about 15,000 new teachers. Most of these new teachers came from private colleges and universities. Table 15 gives the statistical relationship of private and public teacher education institutions. It is evident

that the private colleges and universities provide by far the larger number of teachers. Considerable criticism is made of many of the private teacher education institutions because they do not have selective admission requirements (the public normal colleges will accept only students who have been in the upper 50% of their high school graduating class) and often have very large classes with very little instructional material.

Table 15. Teacher Education--1964-65

Teacher Education Institutions	Number of Schools	Enrolment	Graduates
Public	34	37,522	3,685
Private	250	112,158	34,577
Total	284	149,680	38,262

Source: Annual reports, Bureau of Public Schools, Bureau of Vocational Education, Bureau of Private Schools, and a 1967 report on Teacher Education issued by the Board of National Education.

In the last two years, three of the public normal colleges have been made independent national colleges by legislative acts. One of the colleges (Zamboanga Normal College) has implemented its act and now has its own board of trustees and is not in the organization of the Bureau of Public Schools. The other two normal colleges have not implemented their legislative act and they continue as a unit within the Bureau.

General Observations

The Survey Team of 1960 considered the normal colleges to be "staffed and operated by a dedicated, conscientious group of persons who have a fine philosophy of teacher education and who are doing valiant service in spite of the handicap of inadequate finance, insufficient number of teachers and administrative personnel, and lack of equipment and library resources." 14/ The present reviewer would make the same complimentary statement concerning the present situation.

14/ 1960 Survey, pages 307-308.

It is quite obvious that buildings are much more crowded. The schools which were visited had some new buildings but classes were larger and buildings were more crowded. The pupil/teacher ratio has almost doubled.

The libraries appeared to have had limited growth. They were obviously being extensively used and new and appropriate reference books were in evidence. These school libraries are quite a contrast to the libraries observed in secondary schools and vocational schools where new books were a rarity and very few appropriate books were available.

The curriculum continues to be quite overbalanced by language courses. Almost half of the number of hours of instruction in the first two years is language (English, Pilipino and Spanish). The Spanish requirement has been decreased from 24 hours to 12 hours which will give some relief.

It was quite gratifying to learn of education classes being offered to teachers on Saturdays, evenings and during the summer months. Some normal schools were giving radio programs that had some in-service education value. Some of these extension classes were being taken by secondary teachers.

Peace Corps Volunteers were in evidence in the schools visited and their work appeared to be very helpful. They were helping chiefly in English, mathematics and science.

The normal colleges, like the elementary schools and the vocational schools are financed by the national government. Student fees and a tuition charge of ₱80.00 per semester help in the financing. It can be seen from Table 12 that the teachers colleges are better financed than the elementary and secondary schools in terms of per pupil expenditures.

The Implementation of Selected Recommendations of the 1960 Survey--Teacher Education

Certain recommendations of the 1960 Survey Report continue to be significant.

1960 Recommendation: "...all institutions preparing teachers (should) practice selective admission based on standards set by the Board of National Education." (p. 301)

Satisfactory teachers cannot be trained if an institution does not have students selected because of their proven academic aptitude and achievement. The data of Table 15 indicate that approximately one out of ten students enrolled in the public normal schools are graduated each year. These graduates are students who had been above average high school students. The private teacher colleges graduated one out of three of their enrollees when many of these schools had no selective admission standards. These statistical data would support the statement made that the private schools are often "diploma mills." This fact becomes even more important when it is known that probably 90 per cent of the secondary teachers come from private schools. This is a very important recommendation of the 1960 Survey report which has not been implemented.

1960 Recommendation: The normal colleges should expand their facilities for "preparing teachers for the secondary schools." (p. 373)

The analysis of the previous 1960 recommendation supports this recommendation as being relevant and important at the present time. It becomes even more important when one considers the rapidly growing Barrio High School movement. Several thousand secondary teachers have been employed during the past three school years for this new secondary school program. These schools often must make severe compromise in facilities, teacher load, instructional materials. If the teachers have not had satisfactory teacher education, the instruction could be quite poor.

This recommendation has not been implemented. Its implementation is even more important for the immediate future.

1960 Recommendation: The normal colleges should expand their "areas of service (for) offering in-service courses for administration and supervision" and teachers. (p. 373)

Several of the normal colleges are providing evening, Saturday and summer vocation classes for teachers who are performing teaching services. This is a very important service. Some classes in supervision and administration are being offered. Some of the regional training centers are assisted by normal college professional personnel and thus an additional in-service teacher education activity is performed.

1960 Recommendation: "Spanish as a required subject ought to be removed from the curriculum pattern." (p. 320)

The requirement for instruction in Spanish has been reduced from 24 units of college credit to 12 units. This will be beneficial to the curriculum and will allow students to place more emphasis on subject matter related to the elementary school program.

1960 Recommendation: That "qualified private institutions of teacher education...arrange for their students to do some student teaching in the public schools." (p. 302)

Some private teacher colleges are using some of the public schools for observation and practice teaching for their students to the benefit of their teacher training program. Any activity which improves the quality of teacher education should be considered.

Suggestions

The following suggestions are made in regard to teacher education:

1. Expand the normal college curriculum to include the preparation of secondary teachers. This will require better science, mathematics, library and practical arts facilities. Additional professional personnel will be required particularly in subject matter content fields--science, mathematics, history, etc. Additional buildings would be necessary. This would, however, be one of the less expensive ways of improving the secondary schools.

2. Continue to expand in-service education activities. Late afternoon classes, Saturday classes, classes during the summer vacation period, and classes held away from the campus would make it possible for teachers to improve their skills. These activities do not require additional buildings or facilities. They do require some teacher time but the income from fees might largely equalize this cost. The closer and more extensive contact with practicing teachers would help the college personnel as well as the teacher.

3. Work with the Bureau of Public Schools to more extensively and more effectively use the regional training centers, the material production centers and the curriculum materials center. These centers can be very effective in improving instructional practices among practicing teachers as well as training beginning teachers.

4. Language laboratories using some of the more recently developed electronic devices should be used to improve language teaching. These devices are not terribly expensive and they have been proven to be quite effective when used by persons who are acquainted with the proper use of these devices.

5. Consideration should be given to creating a national board for public higher education teacher training institutions which would permit a closer cooperation and coordination of these activities. Certain teacher education institutions should specialize in unique teacher preparation which could be provided in a centralized location rather than distributed among all the institutions. The creating of independent colleges and universities is not believed to be the most effective and efficient means of improving teacher education or general higher education. There now exist a number of public institutions with the name "college" or "university" which have almost none of the qualities of a college or university. This prostitutes higher education and will reflect unfavorably on Philippine higher education. No institution should be classified as an institution of higher education until it has achieved certain minimum standards.

The normal colleges have performed quality services for Philippine education. It is hoped that this service will continue and be extended and improved.

ORGANIZATION AND ADMINISTRATION OF THE PUBLIC SCHOOLS 1958-59 AND 1964-65

Review of Changes in Organization and Administration

Chart 3 gives the organizational relationships for the administration of the public schools in 1958-59.

There have been some significant changes in the organization for the administration of the public schools since 1958-59. Chart 4 gives the present organizational structure.

The significant organizational changes are:

1. The vocational schools are no longer a division of the Bureau of Public Schools. They are a Bureau of Vocational Education of equal status with the Bureau of Public Schools. This change was the result of an act of the Legislature.

2. Instead of three independent national colleges and the University of the Philippines, there are now (a) the University of the Philippines, (b) five state universities, (c) eleven state colleges and independent technical institutes. One of the new universities is a new institution in Marawi City, developed primarily to serve the cultural

CHART 3. Organization for the Administration of the Public Schools, 1958-59

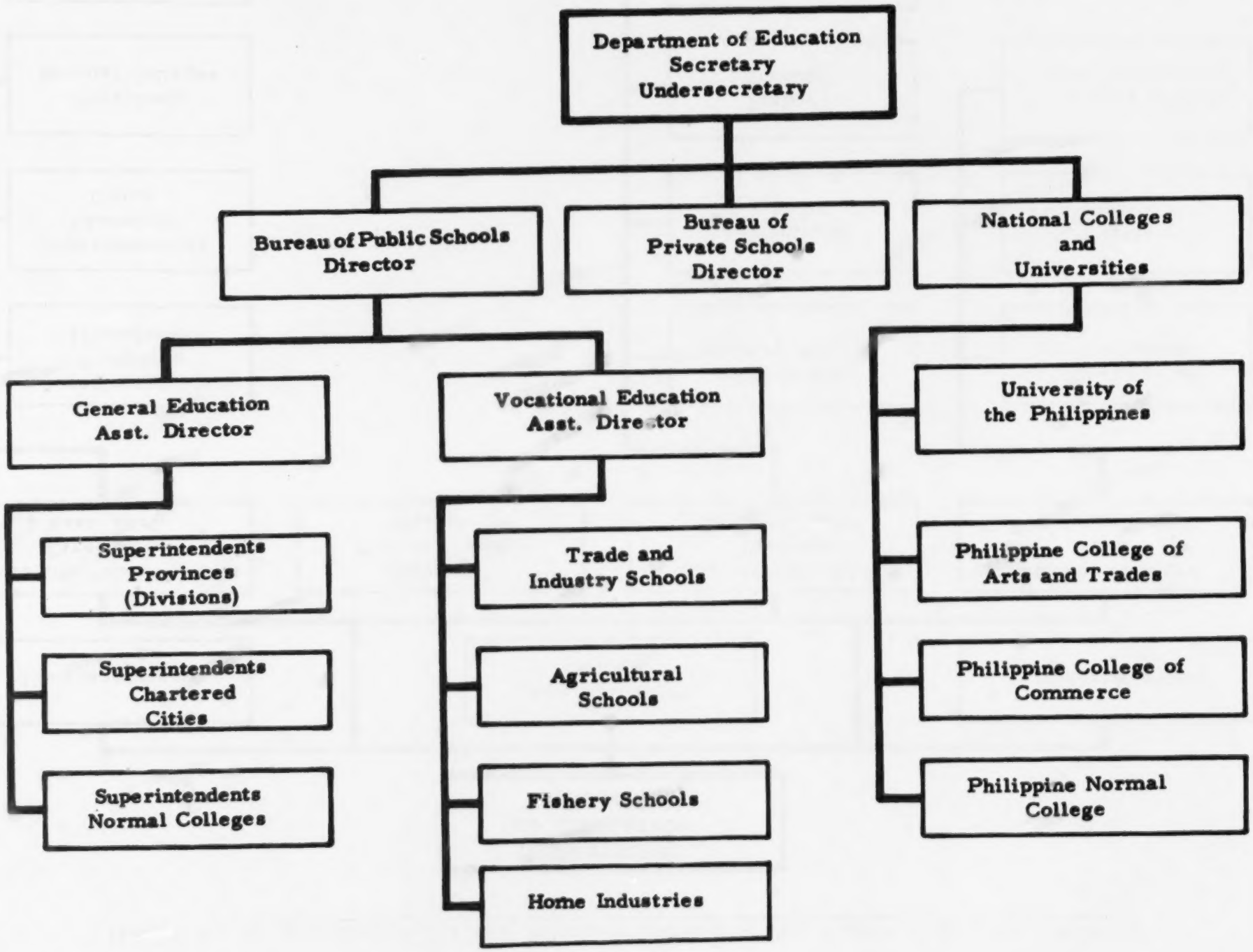
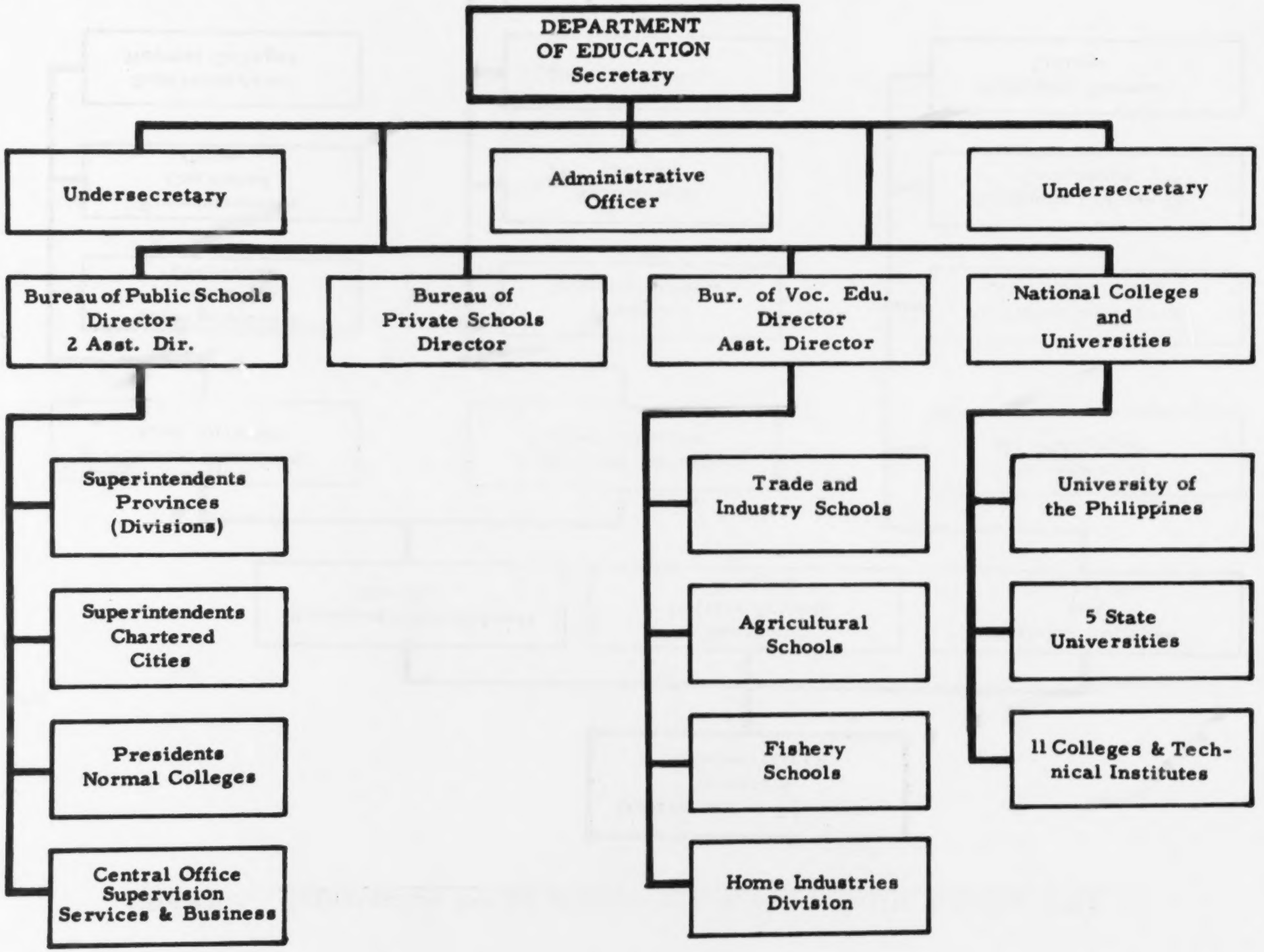


CHART 4. Organization for the Administration of the Public Schools, 1964-65



minorities of southern Philippines. The other twelve new colleges and technical institutes are former vocational schools or normal schools which have been made independent national schools by acts of the Legislature.

General Observations and Suggestions

The change in the organizational structure for vocational education has the following advantages:

1. It makes the vocational schools free from the policies of the general academic schools which often are not appropriate for the vocational schools.

2. It recognizes that the vocational schools are national schools financially and are therefore different in administration from the general secondary schools.

3. It makes it possible for the vocational schools to accept a direct responsibility for an economic contribution to the nation and held responsible for positive results.

This organizational arrangement has some disadvantages.

1. It does not readily permit a close coordination of secondary academic schools and vocational schools. This organizational arrangement would not be a disadvantage if the vocational schools were all post-secondary as suggested in this report.

The reviewer considers the present trend to make vocational schools and normal colleges independent national colleges, technical institutes or universities to be very unwise. This organizational pattern is considered very unwise for the following reasons:

a. It costs the national government considerably more money, or will, when minimum quality programs are established.

b. In many instances the vocational school or normal college is a vital need, while it is very questionable if the college or university level curriculum is needed--there are many private colleges and universities serving this level, some providing very good programs.

c. Most of these new colleges, technical institutes, and universities do not have the equipment, the faculty, the curriculum, the facilities to even remotely provide a quality program at the level their new name implies.

d. It makes it very difficult to have a closely coordinated program between these national colleges and universities which would prevent inefficient overlapping of curriculum offerings and provide an integrated offering of higher education program throughout the nation.

A casual analysis of the activities of the various boards of trustees of these national independent colleges and universities would indicate that a number of very busy educators, 15/ congressmen and others might spend as much as one half of their time in boards of trustees meetings.

It is suggested that the normal colleges and all colleges which are exclusively teacher education institutions be removed from the Bureau of Public Schools and that a Bureau of Teacher Education be created with a director to coordinate, develop policies, and in general administer a national system of teachers colleges. This bureau should have a national board of trustees or an advisory committee. The present independent colleges and universities which are, to a major degree, teachers colleges should be a part of this bureau.

The other independent colleges, technical institutes and universities should be organized under a single board of trustees with a very competent chancellor as its executive officer. This board should establish policies, coordinate activities, allocate funds and be the legislative advocate for all these institutions of higher education.

This type of organization is being widely adopted by states and nations where there is a rapidly growing number of public higher education institutions with resulting increasing enrolments and competition for funds. It permits better coordination and more effective and efficient use of the total national expenditures for higher education.

The suggestion of the reviewer for an over-all administrative organization would be the same as that of the original Survey report 16/ with the exception of a separate Bureau of Vocational Education--as now exists--and a separate Bureau of Teacher Education as described above.

15/ The Secretary, Department of Education, is chairman of each of the present 17 national independent colleges and universities.

16/ 1960 Survey report, p. 467.

FINANCING THE PUBLIC SCHOOLS
1958-59 AND 1964-65

Statistical Review

In 1958-59 the two upper grades--grades 5 and 6, the intermediate schools--were a joint responsibility with the chartered cities supporting the intermediate grades within their boundaries. The national government provides the financing for all the elementary schools in 1964-65. Table 7 in the section on elementary education compares the financing of these schools for the years being considered.

The general high schools are financed by the provinces, the chartered cities and tuition fees. At times certain schools receive some national funds and often donations are significant in amount. Under these conditions it is difficult to obtain an accurate and complete total amount. Table 16 provides some data concerning the financing of general secondary schools.

Table 16. Financing Secondary Schools, 1958-59 and 1964-65

	1958-59	1964-65	Per cent increase
Total Expenditures for Operation (estimated)	₱20,207,936	₱38,249,442	+89%
Enrolment	186,052	303,567	+63%
Per Pupil Cost	₱109/pupil	₱126/pupil	+16%

There is some evidence that the trend is for a larger per cent of the cost of general secondary education to be borne by tuition fees and donations. The major evidence for this is the new barrio high schools program which has grown rapidly in the last two years and the operating costs are entirely paid for by tuition and donations.

The vocational schools are financed by the national government and tuition fees. Table 13 in the section on vocational education shows the financing trends. The nature of vocational instruction, with expensive equipment and smaller shop classes has been the justification for a larger relative expenditure for vocational education. The unit costs are considerably higher than those for elementary, secondary or

teacher education. However, the increase in per pupil expenditure has been less for vocational education than for the other schools during the six-year period being considered. (See Table 12.)

Table 17 shows the changing financial condition for normal colleges. The normal colleges are unique in that they are the only part of the educational system where the unit costs have decreased. A more accurate analysis might show a different situation. The conditions are quite unique in the normal college in Pangasinan because they have been an extended program and some major grants which might affect the total data given, even though an attempt was made to allow for this situation.

Table 17. Financing Teacher Education, 1959-60 and 1964-65

	1959-60	1964-65	Per cent Increase
Total Expenditures	₱1,188,141	₱2,884,816(est.)	+143%
Enrolment	3,410	9,746	+186%
Per Pupil Cost	₱348/pupil	₱296/pupil	- 15%

The general administrative expenditure, Office of the Secretary, was ₱337,500 in 1958-59 and ₱702,150 in 1964-65. It was 0.14% of the total operating costs in 1958-59 and an equal percentage in 1964-65.

The relationship of expenditures for education and the total national budget is shown in Table 18. This table indicates that the expenditures for education are approximately in the same relationship in 1964-65 as they were in 1958-59. Most of these elements of the expenditures have roughly doubled. The total for education has decreased from 27.33% to 26.96% of the national expenditures over these six years.

General Observations and Suggestions

The per pupil expenditures are far too small to provide an extremely high quality educational program in the public schools. The total amounts have increased in all school divisions relatively more than the enrolment except for the normal colleges.

Table 18. Total National Expenditures for Education 1958-59 and 1964-65

		1958-59	1964-65
Total National Government Expenditures			
	Amount	₱934,784,430	₱2,035,355,480
	Percent	100%	100%
Department of Education			
	Amount	₱221,958,450	₱ 504,877,590
	Percent	24%	24.81%
University of the Philippines			
	Amount	₱ 16,747,390	₱ 29,137,620
	Percent	1.79%	1.43%
Independent Colleges			
	Amount	₱ 4,846,250	₱ 14,907,580
	Percent	0.52%	0.73%
TOTAL EDUCATION			
	Amount	₱243,552,090	₱ 548,922,790
	Percent	26%	26.96%

Source: Annual statistical reports, Bureau of Public Schools.

The secondary schools are the poorest financed educational activity. With the advent of the barrio high school, there is sure to be a growing demand for assistance from the national government for the high schools. There are now more than two million youth ages 13 to 16 who are not in school. If all these youths were to be provided secondary education even at the present very low per pupil expenditure, it would require a 60 per cent increase for the Department of Education. If such important activities as science, mathematics and libraries were operated even at a minimum level, it would certainly double the operating expenditures of the Department of Education.

It is suggested that the normal colleges should receive a significant increase in order to at least receive the relative position they had in 1958-59.

It is suggested that the high schools be given serious consideration in terms of a solution to the growing demand for more public high school

services and for a better quality program.

The vocational schools even with the highest per pupil expenditure would need considerably more funds if all the schools called vocational schools were made effective vocational schools. It is suggested that the larger number of vocational schools be recognized as general high schools with an emphasis on the practical arts. That these schools serve as pre-vocational education centers. But that a selected number of trade and industry schools in major metropolitan centers, and an equal number of agricultural schools be brought up to effective vocational instruction standards as suggested in the section on vocational education in this report. This number of selected schools should not be greater than the additional financing will permit.

The particularship program for financing education as suggested in the 1960 Survey report is based on criteria which are equally valid today and should be carefully considered as a plan for better financing the public schools.

Public schools require large amounts of funds. They can be the means of increasing the economic level of a nation where financing education is a profitable investment of a nation. If national expenditures for education is a profitable investment, there must be quality standards developed and maintained. These standards must be continually under review to keep education and national manpower needs in balance.

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APPENDIX "A"

CRITERIA FOR EFFECTIVE VOCATIONAL EDUCATION*

J. Chester Swanson
University of California, Berkeley

A RATIONALE FOR VOCATIONAL-TECHNICAL EDUCATION AND ITS IMPLEMENTATION

> "Ignorance and illiteracy, unskilled workers and school dropouts. . . breed failures in our social and economic system. The loss of only one year's income due to unemployment is more than the total cost of twelve years of education through high school. Failure to improve educational performance is thus not only poor social policy, it is poor economics." 1/

A number of forces in our society are focussing attention on vocational education and its place in today's world. Education is attempting to find a better way to serve all youth in a country and are sure that a large per cent need education specifically for employment.

Social agencies and their leaders are searching for greater stabilization of the family. They are sure that the ability of the father to get and hold a job can be a major factor in producing a better home. They are asking, what part can education for employment play in helping with this problem?

Economists are concerned with human capital and how education can be more effective in developing citizens to be more productive of valuable products and useful services.

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* The content of this Appendix "A" is taken largely from: (a) J. C. Swanson, Vocational Education, Gateway to Economic Development, State Department of Education, Jefferson City, Missouri; (b) J. C. Swanson and Walter Arnold, A Rationale for Vocational-Technical Education and Its Implementation, State Government, Chicago, Ill. To be published in the February 1968 issue.

1/ John F. Kennedy, "Message to the U. S. Congress," January 31, 1963, Washington Post, Washington, D.C.

Political scientists are aware of the value of economic production, social stability and the services of government to its citizens as a means of stability of a nation.

All of these concerns form attention on vocational education. People are not born with the skills and knowledge to produce valuable products and perform useful services. It is necessary for a society to maintain a program of education to make effective and efficient citizens. Research and extensive experience have indicated that vocational education can make persons employable and be an investment of a society rather than a cost to society. This economic value however is not realized unless vocational education accept certain basic criteria and maintain certain standards.

Definition of Vocational-Technical Education

Vocational education does not have a definition which is standard in all countries. The definition used in this presentation is the most widely used definition. Vocational education is that part of the educational spectrum which provides skills and knowledge for a specific employment opportunity. The term generally is not used to include education for the professions (law, medicine, teaching, etc.) which require a college degree program. The term vocational-technical is often used synonymously with vocational education. It is used usually to emphasize that vocational education does include training for occupations which require extensive mathematical and scientific knowledge and skills.

Criteria for Effective Vocational-Technical Education

1. ***Effective vocational education requires a student who is literate and motivated to be a good citizen.***

   The elementary and secondary schools of a nation are the foundation on which vocational education must build. Practical arts should be a part of these programs and should be effective as pre-vocational education.

2. ***Vocational education should be available to youth and adults who are motivated to spend full time in learning skills for an employment opportunity.***

   Vocational education usually require a full-day activity for an extensive period. It is usually for persons who have not been employed and are thus from 16 to 25 years of age. Shop experiences, industrial

arts or practical arts as it is often designated, is often provided to younger persons but is usually too general to be truely vocational.

3. ***Vocational-technical education should be available also to youth and adults who are or have been at work but are motivated to update or upgrade their present occupational skills or to learn new skills and extended knowledge.***

Mechanization and automation are creating the need for many new skills and much more extensive knowledge. The same changes are making many present skills obsolete. Educational program to serve these persons are usually part-time or short-term courses of study. They normally do not lead to a diploma and often cannot require any admission standards except the ability to benefit from the instruction.

Studies in vocational education indicate that instruction for these persons produce more immediate and more efficient economic returns than any other type of vocational education.

4. ***Vocational education programs must develop and maintain input standards.***

Probably the greatest fallacy of vocational education is that no standards are possible or necessary. Very often students who have been failures in all other educational activities are placed in vocational programs. No vocational instruction can be effective unless the students, the teachers, the equipment and the instruction materials meet certain standards. These standards must be related to the objectives of the programs of instruction. These results cannot be effective if any of these elements have standards too low. The results cannot be efficient if any of these elements maintain standards too high. A general outline for input standards follows:

a. The <u>student</u> must have the aptitude, the ability and the motivation necessary to succeed in the program to which he is assigned.

b. The <u>teacher</u> must have extensive training and experience in the occupation or technology which he teaches. (Very little compromise can be made in the skills of the teacher if effective instruction is to take place.)

c. The <u>equipment and supplies</u> must be similar to the equipment and supplies to be used by the student when he is employed. It must be available in sufficient quantities to permit extensive use by the student during his period of instruction.

d. Instruction materials such as textbooks, operating manuals, job sheets, etc., must be organized in a manner to give an adequate curriculum for the specific program of instruction.

5. ***Vocational education must develop and maintain output standards.***

These standards must be related to the objectives of the particular program of studies.

Vocational education is a very diversified educational activity. It includes many skills and extensive knowledge directed toward many occupations at many levels of performance. The objective of one program may be to train persons to change and repair automobile tires. The output standards would be quite different for the automotive mechanic who is trained to diagnose and repair troubles in complex automatic transmissions. If one considers such diverse occupations as food service, office occupations, medical technologies and electronic technicians can understand the great scope of vocational instruction. Each program must have its unique standards.

In general the output standards of vocational instruction must be measured by performance tests.

6. ***The content of vocational programs must be realistically related to the requirements of the labor market.***

Vocational education has very little, if any, value to the individual or to the economy unless the skills which are learned enable a person to get and hold a job. The student must be able and willing to perform services and produce products which are in demand in the labor market.

7. ***The number of persons in training must be related to the number of persons who will be needed by business, industry, commerce and government.***

Competition for available jobs which leave persons without jobs is an economic loss to the state and may result in severe suffering to some persons and their families.

Since the number of jobs requiring any specific set of skills may change, and the type of skill may change, vocational education must recognize obsolescence. Instruction programs may have to be abandoned and new programs developed.

8. ***Vocational education must involve business, labor, industry and government as well as schools.***

It becomes obvious from the above criteria that schools alone cannot perform efficient and effective vocational education services without the close cooperation of other agencies.

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